



Linear Motion solutions for food and beverage

We pioneer motion

SCHAEFFLER

Spice up your food processing

The food and beverage industry is currently facing major challenges related to an evergrowing population. The need to significantly reduce energy consumption and the amount of waste, as well as the increasing labour shortages, reinforce the demand for higher productivity and automation.

Schaeffler offers innovative and energy-saving linear motion solutions with the highest safety standards, enabling the food and beverage industry to overcome many of its challenges and increase operational efficiency.

Schaeffler offers a full range of linear motion solutions suitable for food and beverage equipment that provides

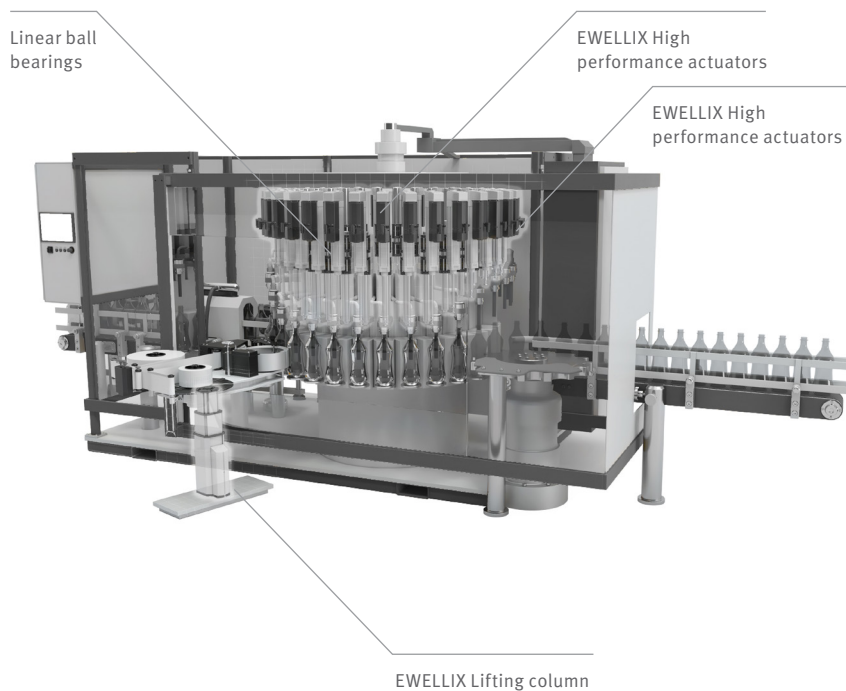
- Fast, precise and reliable linear motion
- High productivity
- Excellent repeatability with high positioning accuracy
- Oil free solutions
- Compact and robust design
- Long service life
- Virtually maintenance-free

Value proposition

- High performance products with high reliability
- Extensive industry experience and knowledge
- Energy saving solutions
- Strong customisation and engineering capabilities
- Global presence and support



Filling stations



Features

- High dynamics and high speed, force capacity
- System efficiency (energy), reliability (work hours), productivity (output)
- Easy integration
- High rigidity
- Robust actuator
- Food grade grease

Benefits

- Easy position control and accurate positioning
- Cost effective position control
- Short set up time
- Long service life
- Extremely good sealing performance with round shaft (LBB)

Filling and dosing stations are measured on precision and efficiency. Different container sizes, liquid types and dosages require flexible machine settings. Schaeffler offers linear motion solutions with increased efficiency, higher precision, and more flexibility compared to mechanical and pneumatic valve control solutions.

EWELLIX Lifting columns

EWELLIX High performance actuators

Linear ball bearings



TFG



CPMA



CASM-32/40/63



EMA-100



LBB

Commercial grills



Features

- Ingress protection against water, dust and oil
- Position and force control with BLDC motor
- Long service life with large ball screw and BLDC motor
- Food grade grease
- High safety standards (self-locking, overload protection, thermal switch)
- Stainless steel push tube and fittings
- Actuator ensures perfect gap accuracy between upper and lower grill plates
- Virtually maintenance-free

Benefits

- Ensures consistent food quality, standardised cooking
- Simple handling
- Cost effective solution
- No maintenance cost
- Safe operation with and without power
- Long service life

Commercial grills can be found in most professional kitchens, from fast-food to fine dining restaurants. With the increasing shortage of skilled workers and rising wages, more and more restaurant operators are looking for ways to simplify their work and improve the consistency and quality.

There are commercial grills on the market that perfect the art of grilling skewers, burgers and vegetables by carefully controlling the temperature, time, pressure and spacing between the top and bottom grill plates depending on the food being cooked.

EWELLIX linear actuators offered by Schaeffler with smart control and force sensing is a core part of these new generation of grills. We have both a standard range available for direct integration and the ability to customise a solution to meet the needs of your machines.

EWELLIX Linear actuators



CAT 32B



CAP 43B

Boilers and mixing tumblers

EWELLIX Linear actuators



Features

- Easy integration
- Robust actuator
- High safety standards
- Enable effortless opening of the upper lid
- Low energy consumption
- Virtually maintenance-free

Benefits

- Safety and comfort in handling
- Easy integration plug-and-play-system
- Cost effective solution
- Easy standardised cooking
- Long service life

Fast and automated kitchens are becoming increasingly popular, and equipment needs to be automated and optimised to ensure high production output with consistent quality and controlled functions.

The boiler can be tilted by the actuator to drain liquids. In addition, the lid can be opened effortlessly with the help of an actuator. A plug-and-play and cost-effective solution that offers safety and convenience in handling.

EWELLIX Linear actuators



Runner

MAX7

Automated professional kitchens



EWELLIX 7th axis solutions

Fast and automated kitchens are becoming increasingly popular, especially for restaurants, as they help to close staff gaps, speed up processes, shorten waiting times and extend opening hours. Thanks to the extended reach of the plug-and-play SLIDEKIT, one robot can operate between different kitchen appliances. Automated kitchens allow hygienic cooking with consistent quality at any time.

Features

- Longest stroke on the market to extend the operating range of the robot by up to 3 times
- Compact footprint
- Plugin included
- Emergency stop connection to robot up to safe torque off (STO) PLe, Cat.4
- Silent and smooth motion
- General purpose version available for all cobots, controlled via digital I/O or Ethernet TCP/IP
- Speed control and acceleration of the SLIDEKIT
- High accuracy and repeatability

Benefits

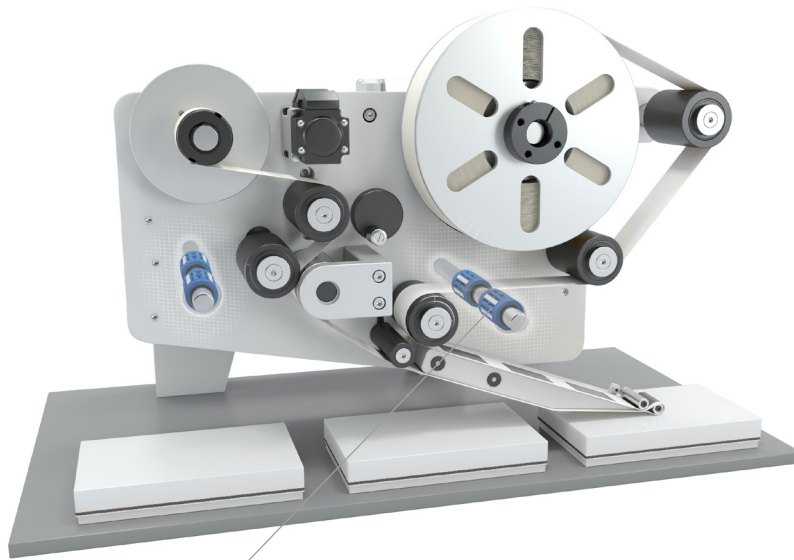
- Extension of the reach enables the use of a cost-effective robot
- Enhanced integration in the customer application
- 7th axis range extender control integrated into cobot software and teach pendant
- Plug-and-play solution reduces time to market
- Fast safety certification process
- Increased productivity and shorter return on investment
- Flexible and precise motion

EWELLIX 7th axis solution



SLIDEKIT

Labelling machines



Linear ball bearings

Features

- Stainless steel variant of linear ball bearing and shafts
- H1 graded grease options
- Simple integration
- Reliable product

Benefits

- Easy realisation with standard bearing units
- Shafts used as guide and structure element
- Corrosion resistant
- Low maintenance as bearings are pre-lubricated
- Very long service time

Product labelling is a fully automated process and used in many industries in food and beverage. The labels need to be fixed on products at different positions. Schaeffler linear ball bearings and profile rail guides are perfect solutions for precise motion at labelling stations. Different stainless steel variants and coatings are available on demand.

Linear ball bearings



LBB

Coffee machines



Linear ball bearings

Features

- Simple integration
- Low friction
- Ready to install factory pre-lubricated products

Benefits

- Easy product integration
- Virtually maintenance free
- Low friction and robust design
- Wide assortment for almost every application
- Very long service time

Comfort and ease of use are a must for many devices. They need to be equipped with advanced features that improve handling and comfort. As in the coffee machine example, the linear ball bearings ensure smooth movement to adjust the height of the filling head to the cup size to avoid splashing at different dispensing heights for increased comfort and ease of use.

Linear ball bearings



LBB

Products overview



EWELLIX Lifting columns	TFG	CPMA
Rated push load	2500 N	Up to 2000 N
Bending load	Up to 500 Nm	Up to 250 Nm
Retracted length	Stroke + 130 mm	Stroke + 160 mm
Speed	Up to 19 mm/s	Up to 15 mm/s



EWELLIX High performance actuators	CASM-32/40/63	EMA-100
Dynamic axial force	Up to 5.4 kN	Up to 80 kN
Dynamic load capacity	Up to 21 kN	Up to 106 kN
Speed	Up to 1067 mm/s	Up to 890 mm/s
Stroke	Up to 800 mm	Up to 2000 mm



EWELLIX Linear actuators	CAT 32B	CAP 43B	Runner	MAX7
Rated push load	Up to 4000 N	Up to 4000 N	Up to 12000 N	Up to 8000 N
Rated pull load	Up to 4000 N	Up to 4000 N	Up to 8000 N	Up to 6000 N
Retracted length	S+167/175/206 *	S+167/175/206 *	S+215/315 mm) **	S + 215/280 mm) **
Speed	Up to 52 mm/sec	Up to 65 mm/sec	Up to 15 mm/sec	Up to 18 mm/sec

* Dimension depends on selected front attachment

** S ≤ 500 mm; L = S + 215, S ≤ 500 mm; L = S + 315

More data available on request



EWELLIX 7th axis for robots

SLIDEKIT

Max dynamic payload	16000 N
Speed	1000 mm/s
Stroke	3000 mm
Accuracy	± 0,01 mm



Linear ball bearings

LBB

Size and range	3 to 80
Dynamic load rating	Up to 37,5 kN
Speed	Up to 5 m/sec
Acceleration	Up to 100 m/ sec ²

More data available on request

Your engineering partner

Customisation

With more than 50 years of experience, we provide customers with tailor-made solutions that fit any application needs. Our extensive product knowledge, combined with engineering expertise, transforms customer needs into tailored solutions. Focusing on client-specific requests, our engineers help customers develop and implement cost-effective solutions to optimise the performance of the application.



EWELLIX EMA made of stainless steel



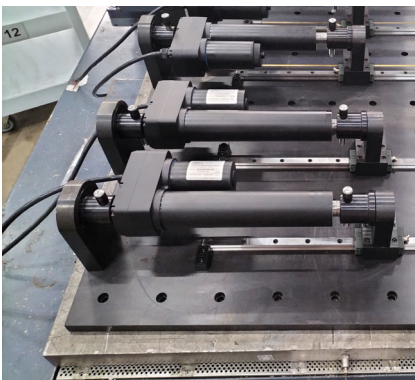
EWELLIX CASM with spring around the push tube



Cylinder with very long stroke length

Testing capacities

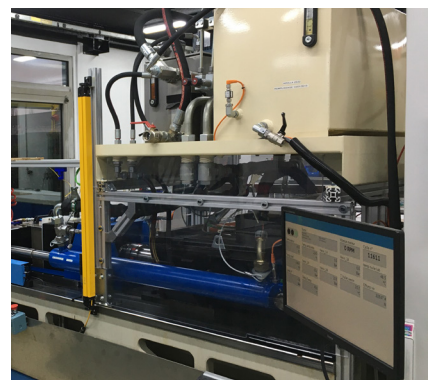
All our products are extensively tested for their key parameters according to a comprehensive test plan that covers all regulatory and environmental requirements and meets the most stringent industry standards. We are able to test all components down to the ball or roller screw. In addition, we can simulate mechanical, electrical and environmental application conditions.



Vibration test



EWELLIX EMA testing



Roller screws testing

Supporting tool

Digital

Schaeffler has developed a portfolio of tool to support customers in easy selection and calculation the right Schaeffler product for their application.

EWELLIX Actuator select

- Product selection
- Performance calculator
- Cost saving calculator

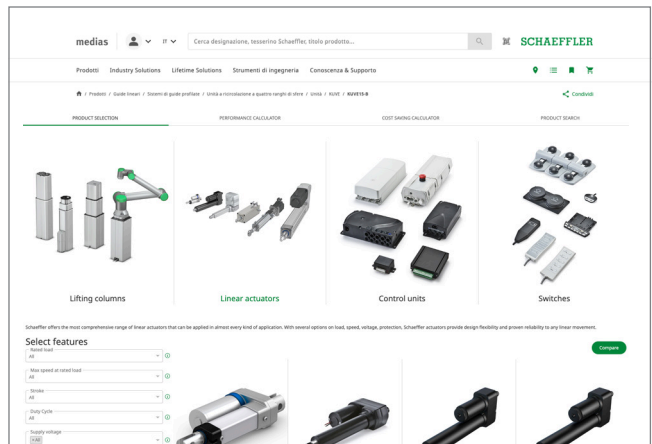
Linear guides select

- Product selection
- Product calculator
- Cross-reference
- Product sear



EWELLIX Actuator select

- › Scan QR code
- › Click on [link](#)



Publications

Supporting documents are available for download on Schaeffler.com on each product page under the technical data section:

- Operating manual
- Mounting instruction



EWELLIX High performance actuator EMA-100
› Scan QR code
› Click on [link](#)



EWELLIX High performance actuator CASM-32/40/63
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EWELLIX CAT/CAP
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EWELLIX MAX7
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EWELLIX SLIDEKIT
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